

Appl. No. 09/853,922
Amdt. dated February 4, 2005
Reply to Office action of November 19, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

Claims 1-11 (canceled).

1 Claim 12 (currently amended). A method for providing a
2 crypto key and an associated checkword of said crypto key to an
3 encryption device for a telemeter system of a missile, said
4 method comprising the method steps of:

5 (a) generating said crypto key and said associated
6 checkword wherein a key loader generates said crypto key and
7 said associated checkword;

8 (b) transferring said crypto key and said associated
9 check word from said key loader to a microcontroller having
10 a memory for a duplication and a storage of said crypto key
11 and said associated check word within said memory;

12 (c) disabling a transmitter connected to said

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13 microcontroller when the transfer of said crypto key and
14 said associated check word to said microcontroller occurs to
15 prevent a transmission of said crypto key and said
16 associated check word by said transmitter;
17 (d) duplicating said crypto key and said associated
18 check word within said ~~microcontroller~~ microcontroller to
19 provide a duplicate of said crypto key and a duplicate of
20 said associated check word;
21 (e) storing said crypto key, said associated check
22 word, the duplicate of said crypto key and the duplicate of
23 said associated check word in the memory of said
24 ~~microcontroller~~ microcontroller;
25 (f) enabling said transmitter after the storage of
26 said crypto key and said associated check word within the
27 memory of said microcontroller;
28 (g) disabling said transmitter prior to a load of said
29 crypto key and said associated check word into said
30 encryption device;
31 (h) loading said crypto key and said associated check
32 word from the memory of said microcontroller into said
33 encryption device wherein said crypto key when loaded into
34 said encryption device provides for encryption of telemetry

data transmitted to a ground station by the telemetry system
of said missile;

(i) enabling said transmitter after the load of said
crypto key and said associated check word into said
encryption device; ~~and~~

(j) erasing said crypto key and said associated check word
from the memory of said encryption device upon a launch of
said missile to prevent an enemy force from retrieving said
crypto key and said associated check word from the missile
after the launch of said missile; and

(k) providing a computer software program executable by said
microcontroller to perform the method steps of:

(i) transferring said crypto key and said associated
checkword from said key loader to said microcontroller;

(ii) disabling said transmitter when the transfer of said
crypto key and said associated check word to said
microcontroller occurs;

(iii) duplicating said crypto key and said associated
check word within said microcontroller;

(iv) storing said crypto key, said associated check
word, the duplicate of said crypto key and the duplicate of
said associated check word in the memory of said

57 microcontroller;
58 (v) loading said crypto key and said associated check
59 word from the memory of said microcontroller into said
60 encryption device;
61 (vi) enabling said transmitter after the load of said
62 crypto key and said associated check word into said
63 encryption device; and
64 (vii) erasing said crypto key and said associated check word
65 from the memory of said encryption device upon a launch of
66 said missile.
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1 Claims 13 (currently amended). The method of claim 12
2 comprising the additional method step of loading the duplicate of
3 said crypto key and the duplicate of said check word into said
4 encryption device when said encryption device rejects said crypto
5 key wherein said computer software program is executable by said
6 microcontroller to perform the additional method step of loading
7 the duplicate of said crypto key and the duplicate of said check
8 word into said encryption device when said encryption device
9 rejects said crypto key.

1 Claim 14 (currently amended). The method of claim 12
2 comprising the additional method step of indicating a status of a
3 store of said crypto key and said associated check word into the
4 memory of said microcontroller wherein said computer software
5 program is executable by said microcontroller to perform the
6 additional method step of indicating the status of the store of
7 said crypto key and said associated check word into the memory of
8 said microcontroller.

1 Claim 15 (currently amended). The method of claim 14
2 wherein ~~said~~ the status of the store of said crypto key and said
3 associated check word into the memory of said microcontroller is
4 indicated by a light emitting diode connected to said
5 microcontroller.

1 Claim 16 (currently amended). The method of claim 12
2 comprising the additional method step of indicating a status of
3 an erase of said crypto key and said associated check word from
4 the memory of said microcontroller wherein said computer software
5 program is executable by said microcontroller to perform the
6 additional method step of indicating the status of the erase of

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7 said crypto key and said associated check word from the memory of
8 said microcontroller.

1 Claim 17 (currently amended). The method of claim 16
2 wherein ~~said~~ the status of the erase of said crypto key and said
3 associated check word from the memory of said microcontroller is
4 indicated by a light emitting diode connected to said
5 microcontroller.

Claims 18-20 (canceled).